



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/498,772	02/05/2000	Alex Krister Raith	P-4015.398/P10569-BMOT-US	9286

7590 10/08/2003

David E Bennett
Coat & Bennett PLLC
PO Box 5
Raleigh, NC 27602

EXAMINER

DAVIS, TEMICA M

ART UNIT	PAPER NUMBER
----------	--------------

2681

DATE MAILED: 10/08/2003

17

Please find below and/or attached an Office communication concerning this application or proceeding.

P29

Office Action Summary

Application No.
09/498,772

Applicant(s)
Raith

Examiner
Temica M. Davis

Art Unit
2681



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Jul 7, 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5, 8-26, 32-43, and 45-49 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-5, 8-14, and 32-37 is/are allowed.
- 6) ☒ Claim(s) 15-26, 38-43, and 45-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- *See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ 6) ☐ Other:

Art Unit: 2681

DETAILED ACTION

Response to Arguments

1. The declaration filed on July 7, 2003 under 37 CFR 1.131 is sufficient to overcome the Garceran reference.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 15-17, 20, 21, 23 and 46-48 are rejected under 35 U.S.C. 102(e) as being anticipated by Ekstrom, U.S. Patent No. 6,052,597.

Regarding claim 15, Ekstrom discloses a method of determining the position of a mobile station comprising determining a position of said mobile station at a first time instant (col. 4,

Art Unit: 2681

lines 39-42); and updating said position periodically, wherein a frequency of said updating is a function of said position of said mobile station (col. 5, line 58-col. 6, line 26).

Regarding claim 16, Ekstrom discloses the method of claim 15 wherein said frequency of updating said position is a function of the relative position of said mobile station with respect to a first base station serving said mobile station (col. 5, lines 3-14).

Regarding claim 17, Ekstrom discloses the method of claim 15 wherein said frequency of updating said position is a function of the relative position of said mobile station with respect to a first base station serving said mobile station and at least one of said additional base station (col. 10, lines 5-43).

Regarding claim 20, Ekstrom discloses the method of claim 15 wherein said frequency of updating said position is a function of the mobility of said mobile station (col. 8, lines 22-29).

Regarding claim 21, Ekstrom discloses the method of claim 20 wherein said frequency of updating said position is a function of the mobility of said mobile station (col. 8, lines 22-29 and col. 5, line 66-col. 6, line 4).

Regarding claim 23, Ekstrom discloses the channel selection method of claim 15 wherein the updating is performed when the mobile is in an idle mode (col. 4, lines 39-49, col. 9, lines 30-35).

Regarding claim 46, Ekstrom discloses a method of controlling a mobile station comprising determining the position of said mobile station (col. 4, lines 39-42); performing a periodic task, wherein the frequency of performing said task is a function of said position of said mobile station (col. 5, line 58-col. 6, line 26); and wherein said frequency of performing said

Art Unit: 2681

periodic task is a function of the relative position of said mobile station with respect to a first base station serving said mobile station and at least one additional base station (col. 5, lines 3-14 and col.10, lines 5-43).

Regarding claim 47, Ekstrom discloses the method of claim 15 wherein said frequency of updating said position is a function of the mobility of said mobile station (col. 8, lines 22-29).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 18, 19 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ekstrom and Soliman, U.S. Patent No. 6,490,460.

Regarding claim 18, Ekstrom discloses the channel selection method of claim 17 as described above. Ekstrom, however, fails to disclose wherein the position of the at least one additional base station is transmitted to the mobile station by said first base station.

In a similar field of endeavor, Soliman discloses power control using the position and mobility information. Soliman further discloses wherein a base station sends the position of an additional base station to a mobile station (col. 7, line 40-col. 8, line 6).

Art Unit: 2681

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Ekstrom with the teachings of Soliman for the purpose of allowing the mobile station to know the location of a possible handoff candidate.

Regarding claim 19, the combination of Ekstrom and Soliman, discloses the channel selection method of claim 18 as described above. The combination, however, fails to disclose wherein the position of the additional base station is included in a neighbor list transmitted to the mobile station by the first base station.

The examiner contends, however, that position information of a base station can be transmitted along with a neighbor list, and the examiner takes official notice as such. At the time of invention, it would have been obvious to a person of ordinary skill in the art that to perform the transmission of the position of the base station together with the neighbor list for the purpose of saving system resources by not having to transmit such information in a separate message.

Regarding claim 26, Ekstrom discloses the channel selection of claim 15 as described. Ekstrom, however, fails to disclose transmitting position information from said mobile station to said base station.

Soliman discloses this limitation (col. 8, lines 17-38).

At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Ekstrom with the teachings of Soliman since such a technique is used in helping a base station determine the position of a mobile station.

Art Unit: 2681

6. Claims 22, 45 and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ekstrom and Wan, U.S. Patent No. 6,385,460.

Regarding claim 22, Ekstrom discloses the channel selection method of claim 20 as described above. Ekstrom, however, fails to disclose wherein updating said position is a function of the length of time said mobile station remains in said position.

Wan discloses this limitation (col. 2, lines 10-20). At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Ekstrom with the teachings of Wan for the purpose of conserving battery power of the mobile station if the position of the mobile station has not changed its position.

Regarding claim 49, Ekstrom discloses a method of controlling a mobile station comprising determining a position of said mobile station (col. 4, lines 39-42); performing a periodic task, wherein the frequency of performing said task is a function of said position of said mobile station (col. 5, line 58-col. 6, line 26).

Ekstrom, however, fails to disclose wherein said frequency of performing said task is a function of the length of time said mobile station remains in said position.

Wan discloses this limitation (col. 2, lines 10-20). At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Ekstrom with the teachings of Wan for the purpose of conserving battery power of the mobile station if the position of the mobile station has not changed its position.

Regarding claim 45, the combination of Ekstrom and Wan discloses the control method of claim 49, wherein said frequency of performing said periodic task is a function of the relative

Art Unit: 2681

position of said mobile station with respect to a first base station serving said mobile station (Ekstrom, col. 5, lines 3-14).

7. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ekstrom and well known prior art.

Regarding claims 24 and 25, Ekstrom discloses the channel selection method of claim 15 as described above.

Ekstrom, however, is silent to the type of call currently being engaged in. The examiner contends, however, that packet and circuit switched calls are very well known in the art, and the examiner takes official notice as such.

Therefore, at the time of invention, it would have been obvious to implement packet and circuit switched calls in Ekstrom since such types of calls are widely used in the art in order to communicate voice or data communications.

8. Claims 38-42 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ekstrom.

Regarding claim 38, Ekstrom discloses a mobile station comprising a transceiver for transmitting and receiving radio frequency signals (col. 4, lines 29-39). Ekstrom further discloses a device for periodically determining the position of said mobile station; inherent control logic for controlling said transceiver; control logic which varies the frequency of

Art Unit: 2681

determining said position of the mobile station as a function of said position (col. 4, lines 39-42, col. 5, line 58-col. 6, line 26).

Ekstrom, however, fails to disclose within the embodiment of the invention taught, a mobile station having a positioning receiver which is used in the position update functions.

Ekstrom does however, that such a positioning receiver (GPS receiver) is well known in the art (col. 1, lines 18-35).

Therefore, at the time of invention, it would have been obvious to a person of ordinary skill in the art to use a GPS receiver in the mobile station, since such a technique is widely used in cellular technology.

Regarding claim 39, Ekstrom as modified discloses the mobile station of claim 38 wherein said control logic varies the frequency of determining said position of said mobile station based on the relative position of said mobile station with respect to a first base station serving said mobile station (col. 5, lines 3-14).

Regarding claim 40, Ekstrom as modified discloses the mobile station of claim 38 wherein said control logic varies the frequency of determining said position of said mobile station based on the relative position of said mobile station with respect to a first base station serving said mobile station and at least one additional base station (col. 10, lines 5-43).

Regarding claim 41, Ekstrom as modified discloses the mobile station of claim 38 wherein said control logic varies the frequency of determining said position of said mobile based on the mobility of said mobile station (col. 8, lines 22-29).

Art Unit: 2681

Regarding claim 42, Ekstrom as modified discloses the mobile station of claim 38 wherein said control logic varies the frequency of determining said position of said mobile based on the rate of change of said position of said mobile station (col. 8, lines 22-29 and col. 5, line 66-col. 6, line 4).

9. Claims 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ekstrom and Wan.

Regarding claim 43, Ekstrom as modified discloses the mobile station of claim 38 as described above. Ekstrom, however, fails to disclose wherein determining said position is a function of the length of time said mobile station remains in said position.

Wan discloses this limitation (col. 2, lines 10-20). At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify Ekstrom with the teachings of Wan for the purpose of conserving battery power of the mobile station if the position of the mobile station has not changed its position.

Allowable Subject Matter

10. Claims 2-5, 8-14 and 32-37 are allowed.

11. The following is a statement of reasons for the indication of allowable subject matter: Prior art fails to suggest or render the method used in performing channel quality measurements as set forth in the independent claims.

Art Unit: 2681

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Temica M. Davis whose telephone number is (703) 306-5837. The examiner can normally be reached on Monday-Thursday from 8:30 am to 6:00 pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Sinh Tran, can be reached on (703) 305-4040.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC2600 customer service whose telephone number is (703)306-0377.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for any communications intended for entry).

*Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).*

Temica M. Davis

October 6, 2003


TEMICA M. DAVIS
PATENT EXAMINER